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IF2.

Total Homocysteine Improves Risk Stratification in Elderly Patients Undergoing Endarterectomy for Their Asymptomatic High-Grade Internal Carotid Stenosis

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Objectives: Efficacy of carotid surgery (CEA) in asymptomatic patients is subject of intense debate. Biomarkers are required to select those who will most likely benefit from CEA for their asymptomatic carotid stenosis (ICAS) despite advanced age.

Aim: In this study we assessed plasma total homocysteine (thcy), a widely acknowledged cardiovascular risk factor, as stratifying biomarker to improve prediction of postoperative survival beyond the age of 75 years.

Methods: Single centered, non-randomized, open-labeled prospective cohort-study from 2003 to 2012. 214 consecutive patients (88 female, 126 male, mean age 71 years) undergoing carotid surgery for their asymptomatic high-grade stenosis of their internal carotid stenosis (ICAS) were observed (mean observation period 8.5 years) for the occurrence of death after CEA as primary end point. (Local Ethics Committee nr: 04-067-0604) Statistics: Mann-Whitney-U Test was used for comparison of medians, Cox-Regression for estimating thcy-associated hazard ratios. Classic cardiovascular risk factors were used for computation of prognostic indices (PI). Cumulative survival probability of PI-based quintiles was estimated by Kaplan-Meier Curves. The effect of the prognostic model was evaluated by the actual percental distribution of age groups age (</>75 years) over PI-based quintiles.

Results: Thcy had a significant effect on postoperative survival. Thcy-based quintiles of prognostic indices showed a better prediction of the patients' 5-year (60 months) survival than age alone. This caused reclassification of 17 patients (20.2%) older than 75 years as fit for surgery, but also indicated a high risk for 19 patients (14.6%) younger than 75 years. In 79.8% of over 75 year old patients, statistically, CEA could not be advised due to significantly reduced survival.

Conclusions: Homocysteine levels, along with other major CVRF, allow a better risk stratification of elderly patients undergoing CEA for their asymptomatic ICAS than an age cut-off of 75 years.

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IF3.

Early Versus Late Experience in Fenestrated Endovascular Repair for Abdominal Aortic Aneurysm

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Objectives: To evaluate operative results and short-term outcomes in early vs late experience after fenestrated endovascular aortic repair (f-EVAR) in two tertiary European referral centers.

Methods: All patients treated in (A) Malmö, Sweden and in (B) Lille, France with f-EVAR for abdominal aortic aneurysm (AAA) were prospectively enrolled in a computerized database. Early experience was defined as the first 50 patients treated at each center. Data from early and late experience was retrospectively analyzed and compared for differences in operative results and one-year outcomes.

Results: Early experience covered 4.7 years in A and 4.5 years in B with late experience covering 5.6 years in A and 3.7 years in B. A total of 288 patients were included without significant differences in comorbidities, gender (male, 88%), age (72 ± 7 years) and preoperative AAA diameter (59 ± 10 mm) between the groups. In the later phase, stent graft configuration was more complex due to increased number of fenestrations/scallops incorporated in the graft design (2.7 ± 0.8 vs 3.2 ± 0.7; $P < .001$). Despite this, contrast volume and radiation time decreased by 27% and 20% respectively while procedure time remained unchanged (279 ± 123 minutes). At one year, AAA diameter decreased (≥5 mm) in 54% of patients in the early group and in 62% of patients in the late group. Similar results for aneurysm expansion were 5% and 2% respectively. No differences were found in operative mortality (2.1%), late mortality (3.8%), reintervention rate (10.5%), type I endoleaks (1.1%) or target vessel patency (98.4%) at one-year follow-up.

Conclusions: With increasing experience, f-EVAR design has become more complicated with more visceral vessels targeted for better proximal seal while operative risk still remains low. This has resulted in a larger portion of aneurysms decreasing in diameter during follow-up. Simultaneously, radiation time and contrast volume has been reduced with possible long-term benefits for the patient.

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